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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SMITH, CHENECA	

ART UNIT	PAPER NUMBER
2192	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,137	BAILLEUL ET AL.	
	Examiner	Art Unit	
	CHENECA SMITH	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the application filed on June 16, 2006.

Claims 1-8 have been examined.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the report file" in line 2. There is insufficient antecedent basis for this limitation in the claim

Claims 7 and 8 both recite the limitation "the report file" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell et al (Automatically Detecting and Visualizing Errors in UML Diagrams).

As to claim 1, Campbell teaches a method for verifying rules on UML models (see Abstract - *automated structural and behavioral analyses applicable to UML diagrams; in addition to intra and inter-diagram consistency checks, we discuss how simulation and model checking can be used in tandem for behavioral analysis of the UML diagrams*), wherein after having established a model, the data of the model are structured so as to render them utilizable by the "Model In Action" tool MIA (see Fig.2 and associated text, e.g. page 266 1st col. 1st paragraph - *we developed a modeling and visualization framework to support a number of tasks necessary to model and analyze UML diagrams; these tasks have been automated in a tool called Minerva and include the following capabilities: graphical construction of syntactically correct UML diagrams; graph oriented consistency checks within UML diagrams*), this tool is made to produce a verification file (*i.e. trace data output from SPIN model checker* - see Fig.2 and associated text, e.g. page 267 1st col. 1st paragraph - *if a claim is violated, the model checking produces a counterexample, which is a sequence of execution steps that demonstrates how the claim was violated*) and a verification report readable by a user is produced on the basis of this file (see page 269 2nd col. 3rd paragraph – *by designing Minerva to automatically process trace data output from SPIN simulation executions and counterexamples; Minerva can also reformat the analysis results into a human-readable report for inclusion in documentation as a supplement to or annotation for graphical diagrams*).

As to claim 2, Campbell teaches the method as claimed in claim 1, wherein the verified rules are one at least of the rules relating to the consistency of the model (see page 265 1st col. 2nd paragraph – *using SPIN's model checking facility, we were able to check requirements based properties for the entire collection of UML diagrams for a given system*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al (Automatically Detecting and Visualizing Errors in UML Diagrams) in view of Kovse et al (Generic XMI-Based UML Model Transformations).

As to claim 3, Campbell teaches the method as claimed in claim 1, but does not specifically teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool. In an analogous art, however, Kovse is cited to teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool (see page 192 2nd paragraph – *a UML model mi is given; a human or software agent wants to transform mi, i.e. add, remove, or modify model elements to obtain a model i+1* and page 193 1st paragraph - *the agent produces an XMI document describing the transformation that has to be applied to obtain the model*

mi+1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the teachings of Campbell and Kovse in order to provide users with an improved technique that would promote model reuse and also speed up the modeling process, as disclosed by Kovse (see Conclusion page 196).

As to claim 6, Campbell teaches the method as claimed in claim 2, but does not specifically teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool. In an analogous art, however, Kovse is cited to teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool (see page 192 2nd paragraph – *a UML model mi is given; a human or software agent wants to transform mi, i.e. add, remove, or modify model elements to obtain a model i+1* and page 193 1st paragraph - *the agent produces an XMI document describing the transformation that has to be applied to obtain the model mi+1*). It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the teachings of Campbell and Kovse in order to provide users with an improved technique that would promote model reuse and also speed up the modeling process, as disclosed by Kovse (see Conclusion page 196).

Claims 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al (Automatically Detecting and Visualizing Errors in UML Diagrams) in view of Berenbach et al (US Patent 7,480,893 B2).

As to claim 4, Campbell teaches the method as claimed in claim 1, but does not specifically teach wherein the report file produced by the MIA tool is in the XML format.

In an analogous art, however, Berenbach is cited to teach wherein the report file produced by the MIA tool (*i.e. modeling application*, see Fig.3, 301 and associated text) is in the XML format (see col.7 lines 36-38 and line 45-46). It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the teachings of Campbell and Berenbach in order to provide an improved method of model checking that would reduce the overall design, development and testing costs, as disclosed by Berenbach (see col.1 lines 58-60).

As to claim 5, Berenbach further teaches wherein the file in the XML format produced by the tool is converted into the XSLT format so as to be transformed into a document file of another appropriate format (see col.7 lines 36-38 and line 45-46).

As to claim 7, Campbell teaches the method as claimed in claim 2, but does not specifically teach wherein the report file produced by the MIA tool is in the XML format. In an analogous art, however, Berenbach is cited to teach wherein the report file produced by the MIA tool (*i.e. modeling application*, see Fig.3, 301 and associated text) is in the XML format (see col.7 lines 36-38 and line 45-46). It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the teachings of Campbell and Berenbach in order to provide an improved method of model checking that would reduce the overall design, development and testing costs, as disclosed by Berenbach (see col.1 lines 58-60).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al (Automatically Detecting and Visualizing Errors in UML Diagrams) in view of

Kovse et al (Generic XMI-Based UML Model Transformations), as applied to claim 3 above, and further in view of Berenbach et al (US Patent 7,480,893 B2).

As to claim 8, Campbell in view of Kovse teaches the limitations of claim 3, but does not specifically teach wherein the file in the XML format produced by the tool is converted into the XSLT format so as to be transformed into a document file of another appropriate format. In an analogous art, however, Berenbach is cited to teach wherein the file in the XML format produced by the tool is converted into the XSLT format so as to be transformed into a document file of another appropriate format (see col.7 lines 36-38 and line 45-46). It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the teachings of Campbell and Kovse with those of Berenbach in order to provide an improved method of model checking that would reduce the overall design, development and testing costs, as disclosed by Berenbach (see col.1 lines 58-60).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHENECA SMITH whose telephone number is (571)270-1651. The examiner can normally be reached on Monday-Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHENECA SMITH/
Examiner, Art Unit 2192
4/19/2010

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192